

**Louisiana Department of Environmental Quality  
Office of Environmental Services**

**STATEMENT OF BASIS**

**For**

**Activity Number: PER20060004**

**Permit No. 2940-00084-V0**

**Kaplan Compressor Station**

**Agency Interest No. 2143**

**Trunkline Gas Company, LLC**

**Kaplan, Vermilion Parish, Louisiana**

**I. APPLICANT**

**Company**

Trunkline Gas Company, LLC  
8100 Big Lake Road  
Lake Charles, Louisiana 70605

**Facility**

Kaplan Compressor Station  
18019 East, Highway 35, Kaplan, Vermilion Parish, Louisiana 70548  
UTM Coordinates: 569.80 kilometers East and 3306.40 kilometers North, Zone 15

**II. FACILITY AND CURRENT PERMIT STATUS**

Trunkline Gas Company, LLC requested a Part 70 operating permit to reconstruct the Kaplan Compressor Station after the fire in 2006. The proposed station will be constructed in two phases (scenarios). The first phase will include the overhauling, upgrading to 5500 hp, installing, and operating of two existing 3000 hp turbines from Centerville, Louisiana. At this phase, operations of each turbine will be limited to 3000 horsepower. The second phase will include the relocation an existing 5100 hp turbine from Joppa, Illinois. The turbine will be overhauled, upgraded to 5500 hp, and then retrofitted with Dry Low NO<sub>x</sub> burners to comply with NSPS Subpart KKKK. At this phase, the first two turbines will also retrofitted with Dry Low NO<sub>x</sub> burners. Operating rate of each turbine in Phase I will be increased to 5500 hp. The station was constructed prior to 1969 and was "grandfathered" from air permitting.

**III. PROPOSED PERMIT / PROJECT INFORMATION**

**Proposed Permit**

A Part 70 operating permit application and Emission Inventory Questionnaire dated November 29, 2006 as well as additional information dated February 9, 2007 were submitted requesting a Part 70 operating permit.

**Kaplan Compressor Station**  
**Agency Interest No. 2143**  
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**Activity Number: PER20060004**  
**Permit No. 2940-00084-V0**

A notice requesting public comment on the permit was published in *The Advocate*, Baton Rouge, and in the local newspaper. A copy of the public notice was mailed to concerned citizens listed in the Office of Environmental Services Public Notice Mailing List. The application and proposed permit were submitted to the Vermilion Parish Library. The proposed permit was submitted to US EPA Region 6. All comments will be considered prior to the final permit decision.

**Project description**

Trunkline Gas Company, LLC requested a Part 70 operating permit to reconstruct the Kaplan Compressor Station after the fire in 2006. The proposed station will be constructed in two phases (scenarios). The first phase will include the overhauling, upgrading to 5500 hp, installing, and operating of two existing 3000 hp turbines from Centerville, Louisiana. At this phase, operations of each turbine will be limited to 3000 horsepower. The second phase will include the relocation an existing 5100 hp turbine from Joppa, Illinois. The turbine will be overhauled, upgraded to 5500 hp, and then retrofitted with Dry Low NO<sub>x</sub> burners to comply with NSPS Subpart KKKK. At this phase, the first two turbines will also retrofitted with Dry Low NO<sub>x</sub> burners. Operating rate of each turbine in Phase I will be increased to 5500 hp.

**Permitted Air Emissions**

Permitted emissions from the station in tons per year are as follows:

Pollutant	Phase I	Phase II
PM <sub>10</sub>	1.81	3.94
SO <sub>2</sub>	0.92	2.04
NO <sub>x</sub>	101.21	142.97
CO	25.99	125.33
VOC, total	12.31	26.49

**Prevention of Significant Deterioration (PSD) Applicability**

Emissions of the criteria pollutants from the facility are less than the PSD major source threshold of 250 tons/year. Therefore, PSD analysis was not required.

**Maximum Achievable Control Technology (MACT) requirements**

Emissions of Toxic Air Pollutants (TAPs) from the terminal are less than the major source threshold. MACT is not required.

**Kaplan Compressor Station**  
**Agency Interest No. 2143**  
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**Activity Number: PER20060004**  
**Permit No. 2940-00084-V0**

**Air Modeling Analysis**

Emissions from these units are not expected to cause or to contribute to any National Ambient Air Quality Standards (NAAQS) or Ambient Air Standards (AAS) exceedances.

Dispersion Model Used: None

**General Condition XVII Activities**

The facility will comply with the applicable General Condition XVII Activities emissions as required by the operating permit rule. However, General Condition XVII Activities are not subject to testing, monitoring, reporting or recordkeeping requirements. For a list of approved General Condition XVII Activities, refer to Section VIII of the draft Part 70 permit.

**Insignificant Activities (LAC 33:III.501.B.5)**

All Insignificant Activities are authorized under LAC 33:III.501.B.5. For a list of approved Insignificant Activities, refer to Section IX of the proposed Part 70 permit. The applicability of the appropriate regulations is straightforward and provided in the Facility Specific Requirements Section of the proposed permit. Similarly, the Monitoring, Reporting and Recordkeeping necessary to demonstrate compliance with the applicable terms, conditions and standards are provided in the Facility Specific Requirements Section of the proposed permit.

**IV. PERMIT SHIELDS**

The Permit does not include any Permit Shields

**V. PERIODIC MONITORING**

The Monitoring, Reporting and Recordkeeping necessary to demonstrate compliance with the applicable terms, conditions and standards are provided in the Facility Specific Requirements Section of the proposed permit. Federally enforceable conditions are used to limit the operating time of the compressor engines. Permittee will monitor monthly operating time and twelve consecutive month total operating time. The total compressor engine operating time is reported annually.

**Kaplan Compressor Station**  
**Agency Interest No. 2143**  
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**VI. APLICABILITY AND EXEMPTIONS OF SELECTED SUBJECT ITEMS**

ID No:	Requirement	Status	Citation	Explanation
EQT002, EQT003	LAC 33:III.1503.C. Standards for SO <sub>2</sub>	Exempt	LAC 33:III.1503.C	SO <sub>2</sub> emissions < 250 tons/year
	LAC 33:III.1511 CEM for SO <sub>2</sub>	Exempt	LAC 33:III.1511.A	SO <sub>2</sub> emissions < 100 tons/year
	NSPS Subpart GG for turbines	Does not apply	40 CFR 60.330(b)	The turbines were constructed in 1970
	NSPS Subpart KKKK	Does not apply	40 CFR 60.4305(a)	Do not qualify as a modification
EQT004, EQT005, EQT006	LAC 33:III.1503.C. Emission Standards for Sulfur Dioxide	Exempt	LAC 33:III.1503.C	SO <sub>2</sub> emissions < 250 tons/year
	LAC 33:III.1511 CEM for SO <sub>2</sub>	Exempt	LAC 33:III.1511.A	SO <sub>2</sub> emissions < 100 tons/year
	NSPS Subpart GG for turbines	Does not apply	40 CFR 60.4305(b)	The turbines comply with NSPS Subpart KKKK
EQT007	LAC 33:III.1503.C. Emission Standards for Sulfur Dioxide	Exempt	LAC 33:III.1503.C	SO <sub>2</sub> emissions < 250 tons/year
	LAC 33:III.1511 CEM for SO <sub>2</sub>	Exempt	LAC 33:III.1511.A	SO <sub>2</sub> emissions < 100 tons/year
EQT008	LAC 33:III.2103 for VOC tanks	Exempt	LAC 33:III.2103.G.2	The tank in Vermilion Parish and stores condensate prior to lease custody transfer
	40 CFR 63 Subpart Kb	Does not apply	40 CFR 60.110b(d)(4)	The tank condensate prior to lease custody transfer
EQT009	LAC 33:III.2107 for VOC tanks	Does not apply	LAC 33:III.2107.A.1.a	Throughput < 20,000 gal/day
FUG001	40 CFR 60 Subpart KKK for fugitive emissions from gas plants	Does not apply	40 CFR 60	No construction/modification after January 20, 1984
GRP001, GRP002	LAC 33:III.Chapter 59 40 CFR 68	Does not apply	40 CFR 5901.B	The facility does not store or handle materials above their threshold quantities
The above table provides explanation for both the exemption status or non-applicability of a source cited by 2 or 3 in the matrix presented in Section X of the permit				

**Kaplan Compressor Station**  
**Agency Interest No. 2143**  
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**Activity Number: PER20060004**  
**Permit No. 2940-00084-V0**

**VII. STREAMLINED REQUIREMENTS**

The Permit does not include any streamlined requirements.

**VIII. GLOSSARY**

Best Available Control Technologies (BACT) - An emissions limitation (including a visible emission standard) based on the maximum degree of reduction for each pollutant subject to regulation under this part which would be emitted from any proposed major stationary source or major modification which the administrative authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant.

CAM - Compliance Assurance Monitoring rule – A federal air regulation under 40 CFR Part 64

Carbon Black - A black colloidal substance consisting wholly or principally of amorphous carbon and used to make pigments and ink.

Carbon Monoxide (CO) – (Carbon monoxide) a colorless, odorless gas produced by incomplete combustion of any carbonaceous (gasoline, natural gas, coal, oil, etc.) material.

Cooling Tower – A cooling system used in industry to cool hot water (by partial evaporation) before reusing it as a coolant.

Continuous Emission Monitoring System (CEMS) – The total combined equipment and systems required to continuously determine air contaminants and diluent gas concentrations and/or mass emission rate of a source effluent.

Cyclone – A control device that uses centrifugal force to separate particulate matter from the carrier gas stream.

Duct Burner – A device that combusts fuel and that is placed in the exhaust duct from another source (such as a stationary gas turbine, internal combustion engine, kiln, etc.) to allow the firing of additional fuel to heat the exhaust gases before the exhaust gases enter a steam generating unit.

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**Permit No. 2940-00084-V0**

Federally Enforceable Specific Condition - A federally enforceable specific condition written to limit the potential to Emit (PTE) of a source that is permanent, quantifiable, and practically enforceable. In order to meet these requirements, the draft permit containing the federally enforceable specific condition must be placed on public notice and include the following conditions:

- A clear statement of the operational limitation or condition which limits the source's potential to emit;
- Recordkeeping requirements related to the operational limitation or condition;
- A requirement that these records be made available for inspection by LDEQ personnel;
- A requirement to report for the previous calendar year.

Grandfathered Status- Those facilities that were under actual construction or operation as of June 19, 1969, the signature date of the original Clean Air Act. These facilities are not required to obtain a permit. Facilities that are subject to Part 70 (Title V) requirements lose grandfathered status and must apply for a permit.

Heat Recovery Steam Generator (HRSG) – A steam generator that recovers exhaust heat from a gas turbine, and provides economizing and steam generation surfaces.

Hydrogen Sulfide (H<sub>2</sub>S) - A colorless inflammable gas having the characteristic odor of rotten eggs, and found in many mineral springs. It is produced by the action of acids on metallic sulfides, and is an important chemical reagent.

Maximum Achievable Control Technology (MACT) - The maximum degree of reduction in emissions of each air pollutant subject to LAC 33:III.Chapter 51 (including a prohibition on such emissions, where achievable) that the administrative authority, upon review of submitted MACT compliance plans and other relevant information and taking into consideration the cost of achieving such emission reduction, as well as any non-air-quality health and environmental impacts and energy requirements, determines is achievable through application of measures, processes, methods, systems, or techniques.

NESHAP - National Emission Standards for Hazardous Air Pollutants –Air emission standards for specific types of facilities, as outlined in 40 CFR Parts 61 through 63

Nitrogen Oxides (NO<sub>x</sub>) - Compounds whose molecules consists of nitrogen and oxygen.

Nonattainment New Source Review (NNSR) - A New Source Review permitting program for major sources in geographic areas that do not meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. Nonattainment NSR is designed to ensure that emissions associated with new or modified sources will be regulated with the goal of improving ambient air quality.

**Kaplan Compressor Station  
Agency Interest No. 2143  
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Activity Number: PER20060004  
Permit No. 2940-00084-V0**

NSPS - New Source Performance Standards – Air emission standards for specific types of facilities, as outlined in 40 CFR Part 60

Organic Compound - Any compound of carbon and another element. Examples: Methane (CH<sub>4</sub>), Ethane (C<sub>2</sub>H<sub>6</sub>), Carbon Disulfide (CS<sub>2</sub>)

Part 70 Operating Permit- Also referred to as a Title V permit, required for major sources as defined in 40 CFR 70 and LAC 33:III.507. Major sources include, but are not limited to, sources which have the potential to emit:  $\geq 10$  tons per year of any toxic air pollutant;  $\geq 25$  tons of total toxic air pollutants; and  $\geq 100$  tons per year of regulated pollutants (unless regulated solely under 112(r) of the Clean Air Act) (25 tons per year for sources in non-attainment parishes).

PM<sub>10</sub>- Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by the method in Title 40, Code of Federal Regulations, Part 50, Appendix J.

Potential to Emit (PTE) - The maximum capacity of a stationary source to emit any air pollutant under its physical and operational design.

Prevention of Significant Deterioration (PSD) – A New Source Review permitting program for major sources in geographic areas that meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. PSD requirements are designed to ensure that the air quality in attainment areas will not degrade.